PATENT COOPERATION TREATY

From the INTERNATIONAL BUREAU

PCT

NOTIFICATION OF ELECTION

(PCT Rule 61.2)

To:

Commissioner
US Department of Commerce
United States Patent and Trademark Office, PCT
2011 South Clark Place Room CP2/5C24
Arlington, VA 22202
ETATS-UNIS D'AMERIQUE

in its capacity as elected Office

Date of mailing (day/month/year) 03 July 2001 (03.07.01)	
International application No. PCT/GB00/03320	**Applicant's or agent's file reference** TLW/44789
International filing date (day/month/year) 29 August 2000 (29.08.00)	**Priority date** (day/month/year) 26 August 1999 (26.08.99)
Applicant CLIFTON-BLIGH, Gervase	

1. The designated Office is hereby notified of its election made:

[X] in the demand filed with the International Preliminary Examining Authority on:

22 March 2001 (22.03.01)

[ ] in a notice effecting later election filed with the International Bureau on:

2. The election [X] was

[ ] was not

made before the expiration of 19 months from the priority date or, where Rule 32 applies, within the time limit under Rule 32.2(b).

The International Bureau of WIPO **34, chemin des Colombettes** **1211 Geneva 20, Switzerland**	Authorized officer Zakaria EL KHODARY
Facsimile No.: (41-22) 740.14.35	Telephone No.: (41-22) 338.83.38

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(71) Applicant *(for all designated States except US)*: **SYMTEC LIMITED** [GB/GB]; 32 Athol Street, Douglas, Isle of Man IM1 1JB (GB).

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(81) Designated States *(national)*: IN, JP, US.

(84) Designated States *(regional)*: European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE).

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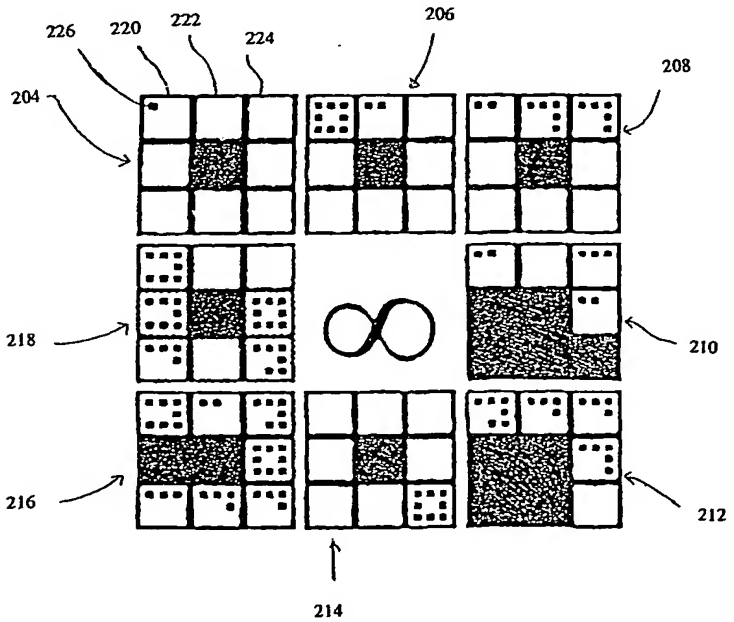
— *Without international search report and to be republished upon receipt of that report.*

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: METHODS AND DEVICES FOR SELECTING ITEMS SUCH AS DATA FILES



(57) Abstract: A method is described for allowing a user to select one of a plurality of items. The user employs a device having a display area, and a joystick or a contact sensitive area. The device displays a number of regions equal to the number of items, and defines a number of sections in the angular range of the joystick, or sections within the contact sensitive area, equal to the number of items, and arranged corresponding to the arrangement of the regions of the display area. The user selects one of said items by selecting the corresponding section.

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Published:
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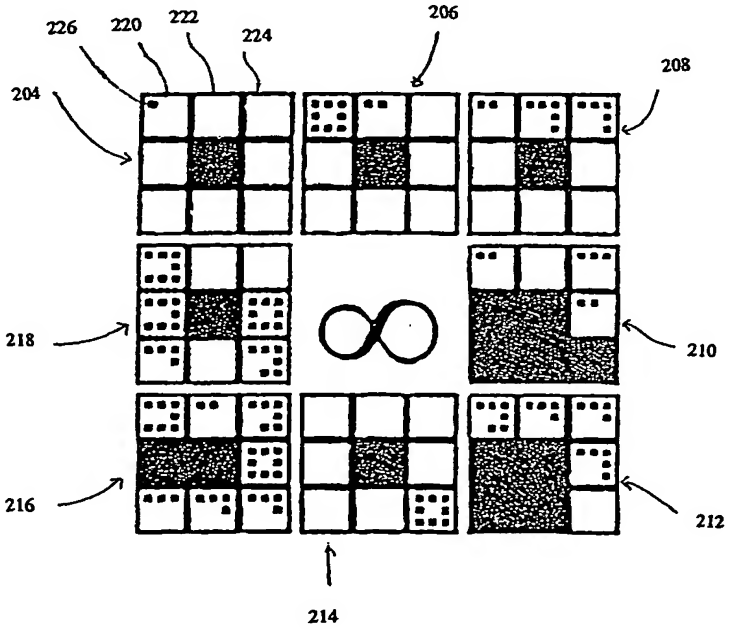
21 June 2001

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: METHODS AND DEVICES FOR SELECTING DATA FILES



(57) Abstract: A method is described for allowing a user to select one of a plurality of items. The user employs a device having a display area, and a joystick or a contact sensitive area. The device displays a number of regions equal to the number of items, and defines a number of sections in the angular range of the joystick, or sections within the contact sensitive area, equal to the number of items, and arranged corresponding to the arrangement of the regions of the display area. The user selects one of said items by selecting the corresponding section.

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AMENDED CLAIMS

[received by the International Bureau on 21 May 2001 (21.05.01); original claims 1-22 replaced by amended claims 1-21 (7 pages)]

1. A method for allowing a user to select one of a plurality of items, the method employing a device having a display area and, separately from the display area, a data input means which registers the location of a contact made by the user in a contact sensitive area extending over a continuous range, the contact sensitive area being substantially loop-shaped and encircling the display area,

the method including:

displaying within the display area a number of regions equal to the number of items;

defining within the contact sensitive area a number of sections equal to the number of items, the arrangement of said sections corresponding to the arrangement of said regions of the display area, each section corresponding to a respective region,

whereby the user can select one of said items by contacting a location in a respective one of said sections;

characterized in that the sections are defined by partitioning the substantially loop-shaped contact sensitive area along its circumferential direction, and the regions are provided along a path corresponding to the circumferential direction of the contact sensitive area.

2. A method according to claim 1 in which the path is independent of the number of regions, and the step of

displaying the regions includes partitioning the path into a number of elements corresponding to the number of regions and displaying a region in each path element.

3. A method according to any of claims 1 in which for each possible number of regions up to a maximum, there is a predefined arrangement of that number of regions.

4. A method according to claim 1, claim 2 or claim 3 in which the regions have respective centres which are not on a straight line.

5. A method for allowing a user to select one of a plurality of items, the method employing a device having a display area and, separately from the display area, a data input means which registers a selection made by the user within a continuous range,

the method including at least one step of:

displaying within the display area a number of regions, each item corresponding to a respective item;

(i) defining a plurality of subsets of said regions; and

(ii) defining within the continuous range a number of sections equal to the number of subsets, the arrangement of said sections corresponding to the arrangement of the respective subsets of regions, whereby the user can select one of said subsets by selecting the respective one of said sections;

optionally, at least one step of:

(i) defining a plurality of subsets of said selected subset of regions; and

(ii) defining within the continuous range a number of sections equal to the number of subsets, the arrangement of said sections corresponding to the arrangement of the respective subsets of regions, whereby the user can select one of said subsets by selecting the respective one of said sections; and

defining within the continuous range a number of sections equal to the number of items in the previously selected subset, the arrangement of said sections corresponding to the arrangement of the respective region representing the items, whereby the user can select one of said items by selecting the respective one of said sections;
wherein said data input device is contact-sensitive surface or a joystick indicator.

6. A method according to any preceding claim in which the sections collectively cover the whole of the contact sensitive area, so that defining the sections is equivalent to partitioning the entire area.

7. A method according to any preceding claim in which the user can (i) vary the selection of the item, information being displayed in relation to the item corresponding to the present selection, and (ii) by a predetermined action make a definitive selection.

8. A method according to any preceding claim which is performed repeatedly, on each occasion selecting from items which are logically related to the item selected in the previous step.

9. A method according to any preceding claim in which the logical relationships are of any type or types suitable for defining a hyperspace.

10. A method according to any preceding claim in which the items are data files, sets of data files or portions of data files.

11. A method according to claim 10 in which at least some of the data files are stored in a location remote from the device but accessible to the device.

12. A method according to claim 10 or claim 11 in which, upon selecting a data file, the user is presented with at least some information about that data file.

13. A method according to any of claims 10 to 12 in which, upon selecting a data file, the user can open the selected data file.

14. A device for allowing a user to select one of a plurality of items, the device having

a display area, for displaying a number of regions equal to the number of items;

a contact-sensitive data input device, separate from said display area , which registers the location of a contact

made with a substantially loop-shaped contact-sensitive area encircling the display area; and

a processor for (i) defining within the contact-sensitive area a number of sections equal to the number of items, the arrangement of said sections corresponding to the arrangement of said regions of the display area and each section corresponding to a respective region, and (ii) upon a user contacting a respective one of the sections, determining the corresponding item,

characterized in that the processor defines the sections by partitioning the substantially loop-shaped contact sensitive area along its circumferential direction, and the regions are provided along a path corresponding to the circumferential direction of the contact sensitive area.

15. A device for allowing a user to select one of a plurality of items, the device having

a display area, for displaying a number of regions equal to the number of items;

a data input means which registers a selection made by the user within a continuous range (e.g. the data input device may be a contact sensitive area, different from said display area, which registers the location of a contact made by the user within the area); and

a processor for

(i) defining a plurality of subsets of said regions; and

a data input means which registers a selection made by the user within a continuous range (e.g. the data input device may be a contact sensitive area, different from said display area, which registers the location of a contact made by the user within the area); and

a processor for

(i) defining a plurality of subsets of said regions; and

(ii) defining within the continuous range a number of sections equal to the number of subsets, the arrangement of said sections corresponding to the arrangement of the respective subsets of regions, whereby the user can select one of said subsets by selecting the respective one of said sections;

optionally, at least one step of:

(i) defining a plurality of subsets of said selected subset of regions; and

(ii) defining within the continuous range a number of sections equal to the number of subsets, the arrangement of said sections corresponding to the arrangement of the respective subsets of regions, whereby the user can select one of said subsets by selecting the respective one of said sections; and

defining within the continuous range a number of sections equal to the number of items in the previously selected subset, the arrangement of said sections corresponding

to the arrangement of the respective region representing the items, whereby the user can select one of said items by selecting the respective one of said sections;

wherein said data input device comprises a contact-sensitive surface or a joystick indicator.

16. A device according to claim 14 or 15 in which the data input means is not adapted to display information.

17. A device according to any of claims 14 to 16 in which the data input means is arranged to be rotatable about the display device, whereby the user can enter data into the data input means by rotating the data input means by a selected rotational angle.

18. A device according to any of claims 14 to 17 in which the data input means has a rest plane and it cantable out of the rest plane, whereby the user can enter data into the data input device by canting the display device in a selected direction.

19. A device according to any of claims 14 to 18 which is an item of consumer electronics.

20. A device according to any of claims 14 to 19 in which the display area is a low resolution screen.

21. A computer program product readable by a computer device which causes the computer device to perform a method according to any of claims 1 to 13.

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference	FOR FURTHER ACTION	see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below.
TLW/44789		
International application No.	International filing date *(day/month/year)*	(Earliest) Priority Date *(day/month/year)*
PCT/GB 00/03320	29/08/2000	26/08/1999
Applicant		
SYMTEC LIMITED		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 3 sheets.

[X] It is also accompanied by a copy of each prior art document cited in this report.

1. **Basis of the report**

   a. With regard to the **language,** the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

   [ ] the international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

   b. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international search was carried out on the basis of the sequence listing :

   [ ] contained in the international application in written form.

   [ ] filed together with the international application in computer readable form.

   [ ] furnished subsequently to this Authority in written form.

   [ ] furnished subsequently to this Authority in computer readble form.

   [ ] the statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.

   [ ] the statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished

2. [ ] **Certain claims were found unsearchable** (See Box I).

3. [ ] **Unity of invention is lacking** (see Box II).

4. With regard to the **title,**

   [ ] the text is approved as submitted by the applicant.

   [X] the text has been established by this Authority to read as follows:

   METHODS AND DEVICES FOR SELECTING DATA FILES

5. With regard to the **abstract,**

   [X] the text is approved as submitted by the applicant.

   [ ] the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. The figure of the **drawings** to be published with the abstract is Figure No. 12a

   [ ] as suggested by the applicant.

   [X] because the applicant failed to suggest a figure.

   [ ] because this figure better characterizes the invention.

   [ ] None of the figures.

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference	FOR FURTHER ACTION	See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)
TLW/44789		
International application No.	International filing date *(day/month/year)*	Priority date *(day/month/year)*
PCT/GB00/03320	29/08/2000	26/08/1999
International Patent Classification (IPC) or national classification and IPC G06F17/30		
Applicant SYMTEC LIMITED et al.		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of 6 sheets, including this cover sheet.

   ☒ This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

   These annexes consist of a total of 7 sheets.

3. This report contains indications relating to the following items:

   - I ☒ Basis of the report
   - II ☐ Priority
   - III ☒ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
   - IV ☐ Lack of unity of invention
   - V ☐ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations suporting such statement
   - VI ☐ Certain documents cited
   - VII ☒ Certain defects in the international application
   - VIII ☒ Certain observations on the international application

Date of submission of the demand	Date of completion of this report
22/03/2001	26.11.2001
Name and mailing address of the international preliminary examining authority: European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465	Authorized officer Jaedicke, M Telephone No. +49 89 2399 2357

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No. PCT/GB00/03320

I. Basis of the report

1. With regard to the **elements** of the international application *(Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17))*:
Description, pages:

1-82	as originally filed				

Claims, No.:

1-28	as received on	08/11/2001	with letter of	05/11/2001	

Drawings, sheets:

1/13-13/13	as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

   These elements were available or furnished to this Authority in the following language: , which is:

   - ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
   - ☐ the language of publication of the international application (under Rule 48.3(b)).
   - ☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

   - ☐ contained in the international application in written form.
   - ☐ filed together with the international application in computer readable form.
   - ☐ furnished subsequently to this Authority in written form.
   - ☐ furnished subsequently to this Authority in computer readable form.
   - ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
   - ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

   - ☐ the description, pages:
   - ☐ the claims, Nos.:

☐ the drawings, sheets:

5. ☒ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)):

   (Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)
   see separate sheet

6. Additional observations, if necessary:

III. Non-establishment of opinion with regard to novelty, inventive step and industrial applicability

1. The questions whether the claimed invention appears to be novel, to involve an inventive step (to be non-obvious), or to be industrially applicable have not been examined in respect of:

   ☐ the entire international application.

   ☐ claims Nos. .

because:

   ☐ the said international application, or the said claims Nos. relate to the following subject matter which does not require an international preliminary examination (*specify*):

   ☒ the description, claims or drawings (*indicate particular elements below*) or said claims Nos. 1-28 are so unclear that no meaningful opinion could be formed (*specify*):
   see separate sheet

   ☒ the claims, or said claims Nos. 1-28 are so inadequately supported by the description that no meaningful opinion could be formed.

   ☐ no international search report has been established for the said claims Nos. .

2. A meaningful international preliminary examination cannot be carried out due to the failure of the nucleotide and/or amino acid sequence listing to comply with the standard provided for in Annex C of the Administrative Instructions:

   ☐ the written form has not been furnished or does not comply with the standard.

   ☐ the computer readable form has not been furnished or does not comply with the standard.

VII. Certain defects in the international application

The following defects in the form or contents of the international application have been noted:
see separate sheet

VIII. Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:
see separate sheet

Re Item I

Basis of the report

1. The claims 1 and 2 refer to a data input means "registering the degree of rotation independently of said selection within the range". Claims 18 and 19 refer to a data input means, "whereby the user can enter data into the data input means by rotating the data input means independently of said selection within the range". No basis for these features could be found in the application documents as originally filed (Article 34(2)(b)) and in particular not on page 69, last paragraph. Hence, this feature has been omitted with regard to the examination of the claims.

Re Item III

Non-establishment of opinion with regard to novelty, inventive step and industrial applicability

1. The claims are unclear, not concise, and not fully supported by the description (see VIII) and do not meet the requirements of Article 34(2)(b). Hence, an opinion with regard to novelty, inventive step and industrial applicability has not been established.

Re Item VII

Certain defects in the international application

1. The features of some of the claims (see e.g. claims 2 and 19) are not provided with reference signs placed in parentheses (Rule 6.2(b) PCT).

2. The summary of the invention in the description should refer explicitly to the independent claims and mention their categories.

Re Item VIII

Certain observations on the international application

1. The plurality of independent claims 1, 2, 18, 19 specifying partly overlapping features, sometimes using different definitions or terminology for what appear to be intended to be the same features, makes it unclear what the applicant considers to be the features which are necessary to define the invention for which protection is sought. Hence, the independent claims as a whole are unclear (Article 6 PCT) and the present set of claims is not concise.

   In particular, methods 1 and 2 differ significantly from each other: claim 2 refers to the definition of subsets of the displayed regions, a number of corresponding sections and an optional step comprising several alternatives. However, these features are not present in claim 1.

2. Claims 1, 2, 18, and 19 are not fully supported by the description (Article 6 PCT). The only embodiment disclosed in the description, which comprises an input device with the features of (1) registering a selection made by a user in a loop-shaped range and (2) being rotatable circumferentially by the user is described on page 69, last paragraph of the description. This embodiment shows a contact-sensitive device which registers the location of a contact made by the user in a contact-sensitive area over a continous range, the contact sensitive area being loop-shaped and encircling the display area and the sections are defined by partitioning the substantially loop-shaped contact sensitive area along its circumferential direction.

   These features are essential to the disclosed techniques. In particular, the fact that the contact sensitive area encircles the display is essential in order to clarify what is meant by arranging the sections corresponding to the arrangement of the regions. Moreover, there is no suitable embodiment showing an input device which is based on a different technique than the contact sensitive area which is substantially loop-shaped. For example, one could image that a camera, being adapted for eye-tracking and rotatably mounted on top of a display screen, could be used as an input device. However, such an embodiment has been not disclosed in the description. Hence, the present claims are not fully supported by the description.

Claims

1. A method for allowing a user to select one of a plurality of items, the method employing a device having a display area and, separately from the display area, a data input means which registers the location of a contact made by the user in a contact sensitive area extending over a continuous range,

the method including:

displaying within the display area a number of regions equal to the number of items;

defining within the contact sensitive area a number of sections equal to the number of items, the arrangement of said sections corresponding to the arrangement of said regions of the display area, each section corresponding to a respective region,

whereby the user can select one of said items by contacting a location in a respective one of said sections.

2. A method according to claim 1 in which the sections collectively cover the whole of the contact sensitive area, so that defining the sections is equivalent to partitioning the entire area.

3. A method for allowing a user to select one of a plurality of items, the method employing a device having a display area and, separately from the display area, a joystick indicator device, the joystick indicator device having a joystick which can be urged from a central

location in any of a continuous angular range of directions about the central location, and registering the direction of urging of the joystick,

the method including:

displaying within the display area a number of regions equal to the number of items;

defining within the continuous range a number of sections equal to the number of items, the arrangement of said sections corresponding to the arrangement of said regions of the display area, each section corresponding to a respective region,

whereby the user can select one of said items by urging the joystick from the central location in a direction included in the respective one of said sections.

4. A method according to claim 3 in which the sections collectively cover the whole of the angular range, so that defining the sections is equivalent to partitioning the angular range.

5. A method according to any preceding claim in which the user can (i) vary the selection of the item, information being displayed in relation to the item corresponding to the present selection, and (ii) by a predetermined action make a definitive selection.

6. A method according to any preceding claim which is performed repeatedly, on each occasion selecting from items which are logically related to the item selected in

the previous step.

7. A method according to any preceding claim in which the logical relationships are of any type or types suitable for defining a hyperspace.

8. A method according to any preceding claim in which the regions are arranged along a predefined path in the display.

9. A method according to any of claims 1 to 7 in which for each possible number of regions up to a maximum, there is a predefined arrangement of that number of regions.

10. A method according to any preceding claim in which the items are data files, sets of data files or portions of data files.

11. A method according to claim 10 in which at least some of the data files are stored in a location remote from the device but accessible to the device.

12. A method according to claim 10 or claim 11 in which, upon selecting a data file, the user is presented with at least some information about that data file.

13. A method according to any of claims 10 to 12 in which, upon selecting a data file, the user can open the selected data file.

14. A device for allowing a user to select one of a plurality of items, the device having

a display area, for displaying a number of regions equal to the number of items;

a contact-sensitive data input device, separate from said display area, which registers the location of a contact made with a contact-sensitive area; and

a processor for (i) defining within the contact-sensitive area a number of sections equal to the number of items, the arrangement of said sections corresponding to the arrangement of said regions of the display area and each section corresponding to a respective region, and (ii) upon a user contacting a respective one of the sections, determining the corresponding item.

15. A device according to claim 14 in which the contact sensitive area is loop-shaped and encircles the display area.

16. A device for allowing a user to select one of a plurality of items, the device having

a display area, for displaying a number of regions equal to the number of items;

a joystick data input means which registers an angle in which a joystick member is urged from a central position within a continuous angular range; and

a processor for (i) defining within the continuous range a number of sections equal to the number of items, the arrangement of said sections corresponding to the arrangement of said regions of the display area and each section corresponding to a respective region, and (ii) upon a user contacting a respective one of the sections, determining the corresponding item

17. A method for allowing a user to select one of a plurality of items, the method employing a device having a display area and, separately from the display area, a data input means which registers a selection made by the user within a continuous range,

the method including at least one step of:

displaying within the display area a number of regions, each item corresponding to a respective item;

(i) defining a plurality of subsets of said regions; and

(ii) defining within the continuous range a number of sections equal to the number of subsets, the arrangement of said sections corresponding to the arrangement of the respective subsets of regions, whereby the user can select one of said subsets by selecting the respective one of said sections;

optionally, at least one step of:

(i) defining a plurality of subsets of said selected subset of regions; and

(ii) defining within the continuous range a number of sections equal to the number of subsets, the arrangement of said sections corresponding to the arrangement of the respective subsets of regions, whereby the user can select one of said subsets by selecting the respective one of said sections; and

defining within the continuous range a number of sections equal to the number of items in the previously

selected subset, the arrangement of said sections corresponding to the arrangement of the respective region representing the items, whereby the user can select one of said items by selecting the respective one of said sections;

wherein said data input device is contact-sensitive surface or a joystick indicator.

18. A device for allowing a user to select one of a plurality of items, the device having

a display area, for displaying a number of regions equal to the number of items;

a data input means which registers a selection made by the user within a continuous range (e.g. the data input device may be a contact sensitive area, different from said display area, which registers the location of a contact made by the user within the area); and

a processor for

(i) defining a plurality of subsets of said regions; and

(ii) defining within the continuous range a number of sections equal to the number of subsets, the arrangement of said sections corresponding to the arrangement of the respective subsets of regions, whereby the user can select one of said subsets by selecting the respective one of said sections;

optionally, at least one step of:

(i) defining a plurality of subsets of said

selected subset of regions; and

(ii) defining within the continuous range a number of sections equal to the number of subsets, the arrangement of said sections corresponding to the arrangement of the respective subsets of regions, whereby the user can select one of said subsets by selecting the respective one of said sections; and

defining within the continuous range a number of sections equal to the number of items in the previously selected subset, the arrangement of said sections corresponding to the arrangement of the respective region representing the items, whereby the user can select one of said items by selecting the respective one of said sections;

wherein said data input device comprises a contact-sensitive surface or a joystick indicator.

19. A device according to any of claims 14 to 16 or 18 in which the data input means is not adapted to display information.

20. A device according to any of claims 14 to 16 or 18 to 19, which is an item of consumer electronics.

21. A device according to any of claims 14 to 16 or 18 to 20 in which the display area is a low resolution screen.

22. A computer program product readable by a computer device which causes the computer device to perform a method according to any of claims 1 to 13 or 17.

INTERNATIONAL SEARCH REPORT

International Application No
GB 00/03320

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 G06F17/30

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 G06F G06K H04M

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)
INSPEC, EPO-Internal, IBM-TDB

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X Y	US 4 566 001 A (DOCKENDORFF DAVID G ET AL) 21 January 1986 (1986-01-21) column 3, line 18 -column 4, line 36 claims	1,2,14, 19-22 15
X	JOHNSON B ET AL: "CYCLOPS A ONE BUTTON ALPHA-NUMERIC KEYPAD" MOTOROLA TECHNICAL DEVELOPMENTS,US,MOTOROLA INC. SCHAUMBURG, ILLINOIS, vol. 15, 1 May 1992 (1992-05-01), pages 49-56, XP000306143 the whole document	3-6,16, 19-22

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[X] Further documents are listed in the continuation of box C.

[X] Patent family members are listed in annex.

° Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance

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"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

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"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
12 March 2001	19/03/2001

Name and mailing address of the ISA	Authorized officer
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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication,where appropriate, of the relevant passages	Relevant to claim No.
X	GB 2 332 293 A (BRITISH TELECOMM) 16 June 1999 (1999-06-16) abstract figures 3A-3I	3-6,16, 19-22
Y	US 5 583 833 A (GANNHOLM MARTIN R ET AL) 10 December 1996 (1996-12-10)	15
A	figure 3 column 2, line 22 -column 2, line 60	1,14
A	GB 2 145 257 A (BARNES GUY DESMOND;SMITH CHARLES GEORGE) 20 March 1985 (1985-03-20) abstract figures	3-6,16
A	EP 0 811 940 A (WEBTV NETWORKS INC) 10 December 1997 (1997-12-10) abstract column 2, line 49 -column 3, line 3 column 8, line 12 -column 8, line 37 column 9, line 5 -column 9, line 32 column 11, line 4 -column 14, line 13 figures 3,4A,4B,12	3-13, 16-22
A	"RECTILINEAR POINTING DEVICE AND CURSOR CONTROL" IBM TECHNICAL DISCLOSURE BULLETIN,US,IBM CORP. NEW YORK, vol. 29, no. 10, March 1987 (1987-03), pages 4651-4652, XP000861500 ISSN: 0018-8689 the whole document	1,2,5,6, 14,17-22
A	MUCHALUAT D C ET AL: "WWW fisheye-view graphical browser" PROCEEDINGS 1998 MULTIMEDIA MODELING. MMM'98 (CAT. NO.98EX200), PROCEEDINGS 1998 MULTIMEDIA MODELING. MMM'98, LAUSANNE, SWITZERLAND, 12-15 OCT. 1998, pages 80-89, XP000987383 1998, Los Alamitos, CA, USA, IEEE Comput. Soc, USA ISBN: 0-8186-8911-0 the whole document	1,3,14, 16-22
A	US 5 367 199 A (ARMSTRONG JR ALBERT L ET AL) 22 November 1994 (1994-11-22) abstract figures 1-7	1,14,15

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INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No
GB 00/03320

Patent document cited in search report		Publication date	Patent family member(s)		Publication date
US 4566001	A	21-01-1986	NONE		
GB 2332293	A	16-06-1999	NONE		
US 5583833	A	10-12-1996	US	5487054 A	23-01-1996
GB 2145257	A	20-03-1985	NONE		
EP 0811940	A	10-12-1997	US	6034689 A	07-03-2000
			AU	3139197 A	05-01-1998
			JP	10171842 A	26-06-1998
			WO	9747143 A	11-12-1997
			US	6023268 A	08-02-2000
			US	6133913 A	17-10-2000
			US	6008836 A	28-12-1999
			US	6005563 A	21-12-1999
			US	5940074 A	17-08-1999
			US	5945991 A	31-08-1999
			US	5974461 A	26-10-1999
US 5367199	A	22-11-1994	WO	9322836 A	11-11-1993